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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,838	12/18/2001	Florian Max Kehlstadt	09623C-031610US	4261

20350 7590 12/15/2003

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EXAMINER

BELL, PAUL A

ART UNIT PAPER NUMBER

2675

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,838

Applicant(s)

KEHLSTADT ET AL.

Examiner

PAUL A BELL

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13,14,16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-12,15 and 18-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11, 12, 26 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1 the phrase in last line is incomplete, “detecting movement of said finger along said.” as what should follow “said”.

With regard to claim 11 it recites the limitation "said trench" in line 1. There is insufficient antecedent basis for this limitation in the claim.

With regard to claim 12 the phrase “wherein at least first and second electrodes are electrically **connected with** a third electrode **not connected** to said first and second electrodes” is not clear what it can be.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Mabusth (4,550,221).

With regard to claim 1 Mabusth teaches a pointing device (figure 1, items 12 and 24) comprising: a housing for supporting a user's hand (figure 2, item 26), a pointing sensor mounted in said housing for providing a pointing signal (figure 1, item 12 and figure 2, item 18a), a contour (figure 2, items 18a and 18b) on said housing for receiving a finger (figure 1, item 20) of said user, said contour having curvature in at least one directions (in figure 2 from item 18b at item 34 it curves down to 18A); a solid-state touch sensor in said contour for detecting movement of said finger along said (figure 3).

With regard to claim 3 Mabush teaches the device of claim 1 wherein said touch sensor comprises: at least two electrodes mounted in said contour (figure 3); and a capacitive detection circuit connected to said electrodes for detecting a change in capacitance due to a contact of said finger with said electrodes(column 5, lines 25-30).

With regard to claim 8 Mabush teaches the device of claim 1 further comprising: a sensory feedback element for providing feedback to a user corresponding to an amount of movement of said finger in said contour (figure 1, item 12).

With regard to claim 12 Mabush teaches a pointing device (figure 1, items 12 and 24) comprising: a housing (figure 2, item 26), a pointing sensor mounted in said housing for providing a pointing signal, (figure 1, item 12 and figure 2, item 18a) a plurality of discrete electrodes mounted on said housing to detect movement of a finger (figure 3), wherein at least

first and second electrodes are electrically connected with a third electrode not connected to said first and second electrodes, (it is inherent or they are electrically connected to a sensor or they would not work) said third electrode being mounted where a finger will contact said third electrode in between contacting said first and second electrodes (It is arbitrary what electrode we call first second and third in figure 3 so therefore it reads on this broad language), and a circuit, connected to said electrodes, for detecting contact of said finger with said electrodes (figure 5).

5. Claims 18-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaghefi et al. (6,429,851).

With regard to claim 18 Vaghefi et al. teaches a pointing device (column 2, lines 21-25) comprising: a housing for supporting a user's hand (figure 6, item 10), a pointing sensor mounted in said housing for providing a pointing signal (figure 8, item 40, column 1, lines 30-34)), a speaker mounted in said pointing device (column 4, lines 7-10, figure 17, item 34), for emanating sounds corresponding to a function of said pointing device (abstract).

With regard to claim 19 Vaghefi et al. teaches the pointing device of claim 18 wherein said device is a mouse (column 2, lines 50-53).

With regard to claim 20 Vaghefi et al. teaches a pointing device for use with a computer system (column 2, lines 21-25), comprising: a housing for supporting a user's hand (figure 6, item 10); a pointing sensor mounted in said housing for providing a pointing signal (figure 8, item 40, column 1, lines 30-34), and a notification element mounted in said pointing device for providing a notification to a user responsive to an event external to said computer system (column 2, lines 21-37).

With regard to claim 21 Vaghefi et al. teaches the pointing device of claim 20 wherein said device is a mouse (column 2, lines 50-53).

With regard to claim 22 Vaghefi et al. teaches the pointing device of claim 20 wherein said notification element is a light emitter (column 2, lines 30-33).

With regard to claim 23 Vaghefi et al. teaches the pointing device of claim 22 wherein said light emitter blinks to provide said notification (column 2, lines 30-33).

With regard to claim 24 Vaghefi et al. teaches the pointing device of claim 20 wherein said notification element is a speaker (figure 17, item 34).

6. Claims 15, 25, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Stephan et al. (5,748,185).

With regard to claim 15 Stephan et al. teaches a pointing device (figure 1, item 22) comprising: a housing for supporting a user's hand (figure 2, item 52), a pointing sensor mounted in said housing for providing a pointing signal (figure 2, item 54), a stationary scrolling sensor mounted on said housing (figure 3, items 90 and 88), said scrolling sensor providing a scrolling command in response to a movement of a users finger across said stationary sensor (figure 4), and continuing to provide said scrolling command in response to said finger reaching one end of said stationary scrolling sensor without lifting off (figure 4, item 131).

With regard to claim 25 Stephan et al. teaches a pointing device (figure 1, item 22) comprising: a housing for supporting a user's hand (figure 2, item 52), a pointing sensor mounted in said housing for providing a pointing signal (figure 2, item 54), a solid-state touch sensor having at least two discrete electrodes (figure 3, items 100 and 98, column 7, lines 7-12),

said electrodes being separated with a portion of said housing in between said electrodes, said sensor detecting movement of a finger from one electrode to another (figure 4).

With regard to claim 27 Stephan et al. teaches the pointing device of claim 26 wherein said movement signal comprises a scrolling signal (column 3, lines 16-20).

With regard to claim 28 Stephan et al. teaches a pointing device (figure 1, item 22) comprising: a housing for supporting a user's hand (figure 1, item 52), a pointing sensor mounted in said housing for providing a pointing signal (figure 2, item 54), a solid-state sensor for detecting movement of a finger across said sensor using capacitive sensing with a galvanic contact by said finger (figure 3, items 100 and 98, lines 7-12).

Allowable Subject Matter

7. Claims 2, 4, 5, 6, 7, 9, 10, 11, 26, 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 13, 14, 16, and 17 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 13 the prior art of record does not teach, “a controller connected to an output of said comparison circuit, to said clamp-high circuit and to said clamp low circuit for providing said clamp-high and clamp-low control signals and generating an output signal in response to measuring an amount of time between transitions of said output of said comparison circuit”.

With regard to claim 16 the prior art of record does not teach “comparing said amounts of time to a calibration value corresponding to the absence of a finger on said electrodes”.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

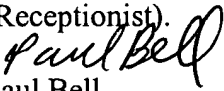
If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or Faxed to: (703) 872-9314 (for Technology Center 2600 only)

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor
(Receptionist).


Paul Bell
Art unit 2675
December 3, 2003


STEVEN SARAS
SUPERVISORY PATENT EXAMINER
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